

**Translation**

PATENT COOPERATION TREATY

**PCT**

PCT/EP2003/002094



**INTERNATIONAL PRELIMINARY EXAMINATION REPORT**

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference HB/vR 2340WO	<b>FOR FURTHER ACTION</b> See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)	
International application No. PCT/EP2003/002094	International filing date (day/month/year) 28 February 2003 (28.02.2003)	Priority date (day/month/year) 12 March 2002 (12.03.2002)
International Patent Classification (IPC) or national classification and IPC B21B 1/22		
Applicant ALCAN TECHNOLOGY & MANAGEMENT LTD.		

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.
2. This REPORT consists of a total of <u>4</u> sheets, including this cover sheet.  <input checked="" type="checkbox"/> This report is also accompanied by ANNEXES, i.e., sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).  These annexes consist of a total of <u>7</u> sheets.
3. This report contains indications relating to the following items:  I <input checked="" type="checkbox"/> Basis of the report II <input type="checkbox"/> Priority III <input type="checkbox"/> Non-establishment of opinion with regard to novelty, inventive step and industrial applicability IV <input type="checkbox"/> Lack of unity of invention V <input checked="" type="checkbox"/> Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement VI <input type="checkbox"/> Certain documents cited VII <input type="checkbox"/> Certain defects in the international application VIII <input type="checkbox"/> Certain observations on the international application

Date of submission of the demand 27 September 2003 (27.09.2003)	Date of completion of this report 04 June 2004 (04.06.2004)
Name and mailing address of the IPEA/EP	Authorized officer
Facsimile No.	Telephone No.

# INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/EP2003/002094

## I. Basis of the report

### 1. With regard to the elements of the international application:\*

- ☐ the international application as originally filed
- ☒ the description:  
 pages \_\_\_\_\_ 6 \_\_\_\_\_, as originally filed  
 pages \_\_\_\_\_, filed with the demand  
 pages \_\_\_\_\_ 1-5 \_\_\_\_\_, filed with the letter of \_\_\_\_\_ 29 January 2004 (29.01.2004)
- ☒ the claims:  
 pages \_\_\_\_\_, as originally filed  
 pages \_\_\_\_\_, as amended (together with any statement under Article 19  
 pages \_\_\_\_\_, filed with the demand  
 pages \_\_\_\_\_ 1-9 \_\_\_\_\_, filed with the letter of \_\_\_\_\_ 29 January 2004 (29.01.2004)
- ☒ the drawings:  
 pages \_\_\_\_\_ 1/1 \_\_\_\_\_, as originally filed  
 pages \_\_\_\_\_, filed with the demand  
 pages \_\_\_\_\_, filed with the letter of \_\_\_\_\_
- ☐ the sequence listing part of the description:  
 pages \_\_\_\_\_, as originally filed  
 pages \_\_\_\_\_, filed with the demand  
 pages \_\_\_\_\_, filed with the letter of \_\_\_\_\_

### 2. With regard to the language, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language \_\_\_\_\_ which is:

- ☐ the language of a translation furnished for the purposes of international search (under Rule 23.1(b)).
- ☐ the language of publication of the international application (under Rule 48.3(b)).
- ☐ the language of the translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

### 3. With regard to any nucleotide and/or amino acid sequence disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- ☐ contained in the international application in written form.
- ☐ filed together with the international application in computer readable form.
- ☐ furnished subsequently to this Authority in written form.
- ☐ furnished subsequently to this Authority in computer readable form.
- ☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- ☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

### 4. ☐ The amendments have resulted in the cancellation of:

- ☐ the description, pages \_\_\_\_\_
- ☐ the claims, Nos. \_\_\_\_\_
- ☐ the drawings, sheets/fig \_\_\_\_\_

### 5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).\*\*

\* Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rule 70.16 and 70.17).

\*\* Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.

# INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.  
PCT/JP03/02185

## V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

### 1. Statement

Novelty (N)	Claims	1 - 7	YES
	Claims		NO
Inventive step (IS)	Claims		YES
	Claims	1 - 7	NO
Industrial applicability (IA)	Claims	1 - 7	YES
	Claims		NO

### 2. Citations and explanations

Reference is made to the following documents:

D1: EP-A-0 153 794 (DU PONT) 4 September 1985  
(1985-09-04)

D2: INGO WAGNER: 'Der Einfluss der Viskosität auf den Stoffübergang in Flüssig-flüssig-Extraktionskolonnen' 1999, HIERONYMUS, MÜNCHEN XP002241868, cited in the application

#### Novelty (PCT Article 33(2))

Claims 1 and 2-7 are novel over the prior art.

#### Inventive step (PCT Article 33(3))

Claims 1 and 2-7 do not involve an inventive step.

D1 describes the removal of cyclic oligomers from PTHF polymers by agitated extraction. According to D1, increasing the rate of stirring (high energy input) enhances the rate of extraction (see claims 1-4; pages 4/5). D1 does not mention the apparatus used. D2 investigates the optimisation of extraction using Kühni columns, stating that a high rate of stirring (high energy

input) enhances the rate of extraction (page 43, lines 4-5, fig. 3.18). It is clear to a person skilled in the art that the Kühni columns described in D2 are suitable for the method described in D1 and that a high energy input ( $> 0.5 \text{ m}^2/\text{s}^3$ ) boosts extraction. Claim 1 is plainly just a specific embodiment of the method described in D1 and one which is obvious from the combination of D1 and D2. Furthermore, at present the claimed method does not appear to be associated with an unexpected technical effect. Claim 1 does not therefore involve an inventive step. The dependent claims, 2-7, are trivial specific embodiments of claim 1 that are known to a person skilled in the art.

**Industrial applicability (PCT Article 33(4))**

The subject matter of the claims is industrially applicable.